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the psychology of language. I had hoped to be able to make some use of the large mass of linguistic material collected by Mr E. H. Man and arranged by Sir Richard Temple, which the latter was so kind as to permit me to examine. Mr Man, however, expressed the intention of publishing that material himself. Therefore, rather than delay longer, I began the publication of my own linguistic studies in a series of papers in the journal *Anthropos*, of which, however, only the first had appeared when the outbreak of war interrupted them[1]. I cannot say when the publication of these notes will be resumed.

Chapters V and VI of the present work contain an attempt at an interpretation of the Andamanese customs and beliefs, which I regard as the most important and hope will be the most valuable part of the book. It is some years since they were written and although they have undergone some revision they now seem to me so inadequately to express my thought that I could wish to rewrite them entirely. At the time they were written (1910) they exhibited an attempt to develop a new method in the interpretation of the institutions of a primitive people. That method will not perhaps seem so novel now as it would have done then. However, I hope that the two chapters will still have value as an example of the method which I believe to be fundamental in the science that has lately come to be known as social anthropology[2].

Of the many imperfections of the book I am, I think, only too well aware. It is indeed an apprentice work, for it was through my work in the Andamans that I really learnt anthropology. However good may be his preliminary training (and mine under Drs Haddon, Rivers and Duckworth at Cambridge

[1] "Notes on the Languages of the Andaman Islands," by A. R. Brown, *Anthropos*, Vol. IX, 1914, pp. 36—52 with map. This paper contains notes on I, The Relations of the Andamanese Languages, and II, The Formation of Words in the Language of the Little Andaman.

[2] I hope to be able to publish shortly the first volume of a work in which the same method is applied to the interpretation of the social institutions of the natives of Australia.

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CHAPTER V

THE INTERPRETATION OF ANDAMANESE CUSTOMS AND BELIEFS: CEREMONIAL

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THE present chapter is devoted to an attempt to interpret some of the beliefs and customs of the Andaman Islanders, as they have been described in the earlier part of this work. By the interpretation of a custom is meant the discovery, not of its origin, but of its meaning. The system of beliefs and customs that exists to-day in the Andamans is the result of a long process of evolution. To seek the origin of these customs, as the word origin is here used, is to seek to know the details of the historical process by which they have come into existence. In the absence of all historical records, the most that we could do would be to attempt to make a hypothetical reconstruction of the past, which, in the present state of ethnological science, would be of very doubtful utility[1].

It is otherwise with the meaning of these customs. Every custom and belief of a primitive society plays some determinate part in the social life of the community, just as every organ of a living body plays some part in the general life of the organism. The mass of institutions, customs and beliefs forms a single whole or system that determines the life of the society, and the life of a society is not less real, or less subject to natural laws, than the

[1] The making of such hypothetical reconstructions of the past has been regarded by a number of writers as the principal if not the sole task of ethnology. My own view is that such studies can never be of any great *scientific* value. Although, within narrow limits, particularly when the method is applied to the facts of language and material culture, it is possible to reach conclusions of some degree of probability, yet by their very nature all such hypotheses are incapable of verification. Moreover, the purpose of scientific studies is to discover general laws, and hypotheses as to events in the past of which we have and can have no certain knowledge will not provide suitable material from which to draw generalisations.

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life of an organism. To continue the analogy, the study of the meaning of savage customs is a sort of social physiology, and is to be distinguished from the study of origins, or changes of custom in just the same way that animal physiology is distinguished from the biology that deals with the origin of species, the causes of variation, and the general laws of evolution.

The problems that this chapter presents are therefore not historical but psychological or sociological. We have to explain why it is that the Andamanese think and act in certain ways. The explanation of each single custom is provided by showing what is its relation to the other customs of the Andamanese and to their general system of ideas and sentiments.

Thus the subject of the present chapter is not in any way affected by questions of the historical origin of the customs with which it deals, but is concerned only with those customs as they exist at the present day. Nor are we concerned with the comparison of the customs of the Andamanese with those of other savage races. Such comparisons are not only valueless for our purpose, but might be misleading. To draw any valid conclusion from the comparison of two apparently similar customs in two different societies, we must be sure that they are really similar, and to do this we need to know the true meaning of each of them considered by itself. The true comparative method consists of the comparison, not of one isolated custom of one society with a similar custom of another, but of the whole system of institutions, customs and beliefs of one society with that of another. In a word, what we need to compare is not institutions but social systems or types.

It is often urged that in ethnology description and interpretation should be most carefully separated. So far as this means that the facts observed by the ethnologist should be recorded free from all bias of interpretation, the necessity cannot be too often or too strongly urged. If, however, it is meant to imply that efforts at interpretation are to be excluded from works of descriptive ethnology, there is much to be said against such an opinion. In trying to interpret the institutions of a primitive society the field ethnologist has a great advantage over those who know the facts only at second hand. However exact and

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detailed the description of a primitive people may be, there remains much that cannot be put into such a description. Living, as he must, in daily contact with the people he is studying, the field ethnologist comes gradually to "understand" them, if we may use the term. He acquires a series of multitudinous impressions, each slight and often vague, that guide him in his dealings with them. The better the observer the more accurate will be his general impression of the mental peculiarities of the race. This general impression it is impossible to analyse, and so to record and convey to others. Yet it may be of the greatest service when it comes to interpreting the beliefs and practices of a primitive society. If it does not give any positive aid towards a correct interpretation, it at least prevents errors into which it is only too easy for those to fall who have not the same immediate knowledge of the people and their ways. Indeed it may be urged, with some reason, that attempts to interpret the beliefs of savages without any first-hand knowledge of the people whose beliefs are in question, are at the best unsatisfactory and open to many possibilities of error.

The present position of ethnological studies may well be regarded as anomalous. Many of the observers engaged in recording the customs of primitive people are very imperfectly acquainted with modern theories of sociology. One result of this is that they often neglect to record anything concerning matters that are of fundamental importance for the theorist[1]. On the other hand those engaged in elaborating hypotheses do not, as a rule, observe for themselves the facts to be explained, but have to rely on what are in many cases imperfect documents, being thus unwittingly led into errors that might have been avoided. In this science, as in others, if progress is to be made, the elaboration of hypotheses and the observation and classification of facts must be carried on as interdependent parts of one process, and no advantage, but rather great disadvantage, results from the false division of labour whereby theorists and observers

[1] It may be worth while to mention that the interpretation of Andamanese customs given in this chapter was not worked out until after I had left the islands. Had it been otherwise I should have made careful enquiries into subjects which, as it was, escaped my notice.

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work independently and without systematic cooperation. The most urgent need of ethnology at the present time is a series of investigations of the kind here attempted, in which the observation and the analysis and interpretation of the institutions of some one primitive people are carried on together by the ethnologist working in the field.

It is clear that such studies need to be based on a scientific and carefully elaborated method. Unfortunately ethnologists are not yet agreed as to the methods of their science. The question of method is therefore, at the present time, of the greatest importance, and for this reason I have tried, in the present chapter, to present the argument in such a way that the various steps of the analysis shall be immediately apparent, so that the reader may be able not only to judge the value of the conclusions, but also to form a clear idea of the psychological methods by which they are reached.

Any attempt to explain or interpret the particular beliefs and customs of a savage people is necessarily based on some general psychological hypothesis as to the real nature of the phenomena to be explained. The sound rule of method is therefore to formulate clearly and explicitly the working hypothesis on which the interpretation is based. It is only in this way that its value can be properly tested.

The hypothesis that seems to be most usually adopted by English writers on anthropology is that the beliefs of savage peoples are due to attempts on the part of primitive man to explain to himself the phenomena of life and nature. The student of human customs, examining his own mind, finds that one of the motives most constantly present in his consciousness is the desire to understand, to explain—in other words what we call scientific curiosity. He concludes that this motive is equally insistent in the mind of primitive man. Thus he supposes that primitive man, wishing to explain the phenomena of death and of sleep and dreams, framed a hypothesis that every man possesses a soul or spiritual double[1]. The hypothesis, once formulated, is supposed to have been accepted and believed

[1] Tylor, *Primitive Culture*, 1, 387.

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because it satisfied this need of comprehension. On this view the belief in a soul (animism) is exactly similar in character to the scientific belief in atoms, let us say. The same general hypothesis appears in the explanation of totemism as having arisen as a theory invented by primitive man in order to explain the phenomena of pregnancy and childbirth[1].

On this hypothesis the beliefs are primary, arising first merely as beliefs and then acquiring the power to influence action and so giving rise to all sorts of ceremonies and customs. Thus these customs are only to be explained by showing that they depend on particular beliefs. This hypothesis, which we may call the intellectualist hypothesis, has never, so far as I am aware, been very clearly formulated or defended, but it does seem to underlie many of the explanations of the customs of primitive man to be found in works on ethnology.

A second hypothesis explains the beliefs of primitive man as being due to emotions of surprise and terror[2], or of awe and wonder[3] aroused by the contemplation of the phenomena of nature.

Both these hypotheses may be held together, one being used to explain some primitive beliefs and the other to explain others[4].

Doubtless there are other psychological hypotheses underlying the many attempts that have been made to explain the customs of primitive peoples, but these two seem to be the most important and the most widespread. They are mentioned here, not in order to criticise them, but in order to contrast them with the hypothesis to be formulated in the present chapter[5].

Stated as briefly as possible the working hypothesis here adopted is as follows. (1) A society depends for its existence on the presence in the minds of its members of a certain system of

[1] Frazer, *Totemism and Exogamy*, IV.

[2] Max Müller, *Physical Religion*, p. 119.

[3] Marett, *Threshold of Religion*.

[4] McDougall, *Introduction to Social Psychology*, Chap. XIII, seems to combine the two hypotheses.

[5] For a criticism of the hypotheses of animism and naturism as explanations of primitive religion see Durkheim, *Les Formes Élémentaires de la Vie Religieuse*, Book I, chapters 2 and 3.

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sentiments[1] by which the conduct of the individual is regulated in conformity with the needs of the society. (2) Every feature of the social system itself and every event or object that in any way affects the well-being or the cohesion of the society becomes an object of this system of sentiments. (3) In human society the sentiments in question are not innate but are developed in the individual by the action of the society upon him. (4) The ceremonial customs of a society are a means by which the sentiments in question are given collective expression on appropriate occasions. (5) The ceremonial (i.e. collective) expression of any sentiment serves both to maintain it at the requisite degree of intensity in the mind of the individual and to transmit it from one generation to another. Without such expression the sentiments involved could not exist.

Using the term "social function" to denote the effects of an institution (custom or belief) in so far as they concern the society and its solidarity or cohesion, the hypothesis of this chapter may be more briefly resumed in the statement that the social function of the ceremonial customs of the Andaman Islanders is to maintain and to transmit from one generation to another the emotional dispositions on which the society (as it is constituted) depends for its existence.

The present chapter contains an attempt to apply this hypothesis to the ceremonial customs of the Andaman Islanders. An attempt will be made to show that there is a correspondence between the customs and beliefs of the Andamanese and a certain system of social sentiments, and that there is also a correspondence between these sentiments and the manner in which the society is constituted. It is an attempt to discover necessary connections between the different characters of a society as they exist in the present. No attempt will be made to discover or imagine the historical process by which these customs have come into existence.

For the clearer understanding of the argument it is necessary to draw attention to a few rules of method that will be observed. (1) In explaining any given custom it is necessary to take

[1] Sentiment,—an organised system of emotional tendencies centred about some object.

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into account the explanation given by the natives themselves. Although these explanations are not of the same kind as the scientific explanations that are the objects of our search yet they are of great importance as data. Like the civilised man of Western Europe the savage of the Andamans seeks to rationalise his behaviour; being impelled to certain actions by mental dispositions of whose origin and real nature he is unaware, he seeks to formulate reasons for his conduct, or even if he does not so when left to himself he is compelled to when the enquiring ethnologist attacks him with questions. Such a reason as is produced by this process of rationalisation is rarely if ever identical with the psychological cause of the action that it justifies, yet it will nearly always help us in our search for the cause. At any rate the reason given as explaining an action is so intimately connected with the action itself that we cannot regard any hypothesis as to the meaning of a custom as being satisfactory unless it explains not only the custom but also the reasons that the natives give for following it. (2) The assumption is made that when the same or a similar custom is practised on different occasions it has the same or a similar meaning in all of them. For example, there are different occasions on which a personal name is avoided; it is assumed that there is something in common to all these occasions and that the meaning of the custom is to be discovered by ascertaining what that common element is. (3) It is assumed that when different customs are practised together on one and the same occasion there is a common element in the customs. This rule is the inverse of the last. As an example may be mentioned the different customs observed by mourners, which may be assumed to be all related to one another. The discovery of what is common to them all will explain the meaning of each. (4) I have avoided, as being misleading as well as unnecessary, any comparison of Andamanese customs with similar customs of other races. Only in one or two instances have I broken this rule, and in those I believe I am justified by special considerations.

We can conveniently begin by considering the Andamanese marriage ceremony, which is one of the simplest and most easily understood. The main feature of it is that the bride and bride-

193 with me. Come after me and we will hunt together." Imitation with the hands of a pig running, shooting arrows, slap on the left breast, squeals of several wounded pigs, and so on. A pause. "You take them in front of me." Directions by pantomime to other persons as to the pigs. "They were cooking them for me in the hut, cooking them well." Brightens up and begins again. "I will bring several more." Pretends to listen. "We have got them. The dogs are barking." And so on for hours.

The actual expressions for such a story are :—

Ba bichiko arlo—l'—eate ago on ? Waingo—lea do on . Ña do roy dele. Kam wai del. Kam wai do on . D'—arloy—lea
How many day——past you come? Morning—in I come. Now I pig hunt. Away indeed I . Away indeed I come (go). Me-behind-in

ka . Wai do jalo——ke. Reg-ke . Kam wai do it on .
there. Indeed I go-away—do. Pig—little. Away indeed I take come.

Wai ka eda otjoi . Do lilti doga——lat. Reg
Indeed there they roasted. I (in-the)—early morning big-(pig)—for. Pig

doga. Do ela P'igjit——ke. D'—okawwa-hea. Kaich d'—arolo.
big . I pig-arrow sharpen—do. I—go——do. Come me—after.

Da—ay'—igdele. D'—okotelewa it on . Wai d'a-ke otjoi——ka
I—you-hunt . Me——before take come. Indeed me—for cooking—were

kad-len. Tua roicha-beringa-ke. Ña do ikpapi—ke. Ikre ka .
hut-in . Very ripe—good—do. Now I several—do. Getting—were.

Wai eda ikkawwa.
Indeed they barked .

Nothing could show more clearly how "savage" the speech is in reality, how purely colloquial, how entirely it depends on concurrent action for comprehension. When the party, who were out with Mr. Vaux when he was killed by the Jarawas in February 1902, returned, they explained the occurrence to their friends at the Home in Port Blair by much action and pantomime and few words. The manner of his death was explained by the narrator lying down and following his movements on the ground.

II. Grammar.

●121 193 **History of the Study.**—I have taken so large a share in the development of the knowledge of the Andamanese tongue that a brief personal explanation is here necessary to make clear the mode of presenting it that now follows.

The first person to seriously study the Andamanese Languages and reduce them to writing was Mr. E. H. Man, and in this work I joined him for a time soon after it was commenced, and in 1877 we jointly produced a small book with an account of the speech of the Bojigngiji Group, or more strictly, of the Bea Tribe. We then worked together on it, making such comparisons with the speech of the other Andaman Tribes as were then possible and compiling voluminous notes for a Grammar and Vocabulary, which are still in manuscript. In 1882 the late Mr. A. J. Ellis used these notes for an account of the Bea Language in his Presidential Address to the Philological Society.

In compiling our manuscript, Mr. Man and myself had used the accepted grammatical terms, and these Mr. Ellis found to be so little suited to the adequate representation for scientific readers of such a form of speech as the Andamanese, that he stated in his Address that :—

> "We require new terms and an entirely new set of grammatical conceptions, which shall not bend an agglutinative language to our inflexional translation."

And in 1883 he asked me, in a letter, if it were not possible "to throw over the inflexional treatment of an uninflected language."

The Theory of Universal Grammar.—Pondering, for the purpose of an adequate presentation of Andamanese, on what was then a novel, though not an unknown, idea, never put into practice, I gradually framed a Theory of Universal Grammar, privately printed and circulated in that year. This Theory remained unused, until Mr. M. V. Portman compiled his notes for a

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Comparative Grammar of the Bojigngiji (South Andaman) Languages in 1898, based avowedly, but not fully, on my Theory. These notes I examined in a second article on the Theory of Universal Grammar in the Journal of the Royal Asiatic Society in 1899, which again was subjected to the favourable criticism of Mr. Sidney Ray, who has since successfully applied it in outline to 16 languages, selected because unrelated and morphologically distinct, viz.—

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1. English.
2. Hungarian.
3. Latin.
4. Khasi, Hills of N. E. Bengal.
5. Anam, French Cochin China.
6. Ashanti, West Africa.
7. Kafir, South Africa.
8. Malagasy, Madagascar.
9. Olo Ngadju or Dayak, South East Borneo.
10. Nufor, Dutch New Guinea.
11. Motu, British New Guinea.
12. Mortlock Islands, Caroline Group. Micronesia.
13. Mota, Banks' Islands, Melanesia.
14. Samoan, Polynesia.
15. Awabakal, Lake Macquarie, Australia.
16. Dakota, North America.

With this brief history of the study of the Andamanese Languages, I will now give an exposition of the Theory so closely bound up with it as briefly and clearly as I can, in order to explain the method employed for exhibiting the peculiarities of Andamanese speech. A more detailed account, specially developed to a considerable extent for the present purpose, will be found in Appendix A.

All speech expresses a communication between man and man by talking or by signs. Languages are varieties of speech. The unit of every language is the expression of a complete communication, *i.e.*, the sentence. All sentences are divided into incomplete expressions of communication, *i.e.*, words, and are as naturally multiplied into languages. Thus there is a development both ways from the sentence.

The necessary primary division of every sentence made up of words is into the matter commmunicated (subject) and the communication made about it (predicate). The words in each of these divisions are of necessity in the relation of principal and subordinate, which involves the fulfilment of a function by every word.

The function of the principal word of the subject is obviously to indicate the matter communicated and of the subordinate words to explain the indication and illustrate that explanation. Similarly the principal word of the predicate indicates the communication made and the subordinate words illustrate the indication or complete it.

Therefore, in every language the essential words in a sentence are:—

(1) indicator, indicating the subject or the complement,
(2) explicator, explaining that indication,
(3) predicator, indicating the predicate,
(4) illustrators, illustrating the predicator or the explicator.

As all speech expresses a communication, it has a purpose, and the function of the sentences is to express one of the five following purposes:—(1) affirmation, (2) denial, (3) interrogation, (4) exhortation, (5) information. The methods adopted for indicating the purpose of a sentence are (1) placing the components in a particular order, or (2) varying their forms or the tones in which they are spoken, or (3) adding special introductory words. When the purposes of speech are by their nature connected together, this connection is naturally indicated by connected sentences in the relation of principal and subordinate, which is expressed by methods similar to those above noted, *viz.*, placing them in a particular order, or varying the forms or tones of their components, or adding special referent words of two kinds, (1) simple conjoining words, (2) words substituting themselves in the subordinate sentence for the words in the principal sentence to which they refer.

The relation of the words composing the parts of a sentence is also expressed by the similar methods of adding special connecting words, or of varying the forms or tones of the words; and so, too, the intimate relation between indicator and predicator, indicator and explicator, illustrator and predicator, predicator and complement, referent substitute and principal, is similarly expressed by special connecting words, by correlated variation of the words in intimate relation, by their relative position, or by the tones used in severally expressing them.

Complete communication can be, and is habitually, in every language, made without a complete expression of it in speech, and so referent words are made to refer to words unexpressed and to be related or correlated to them, and referent substitutes are made to indicate the unexpressed subject or complement of a sentence.

The function of the sentence and the inter-relation of the words composing it are therefore in all speech expressed by three methods: position, variation, or addition of special words. Every language adopts one or more or all of those methods.

Therefore, in every language the optional words in a sentence are:—

(5) connector, explaining the inter-relation of the components,
(6) introducer, explaining its purpose,

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(7) referent conjunctor, joining connected sentences,
(8) referent substitutes, indicating the inter-relation of connected sentences or unexpressed communications.

To the essential and optional components of the sentence must be added (9) the integer, or word that of necessity in every language expresses in itself a complete communication, *i.e.*, is a sentence.

Thus is explainable the natural resolution of the sentence into its component words, but any word can be and habitually is extended to many words, used collectively to express its meaning. Words thus used collectively form a phrase, which is substituted for its original. When a phrase contains in itself a complete meaning, and thus is a sentence substituted for a word, it becomes a clause. Therefore, clauses and phrases are merely expanded words, fulfilling the functions and bearing the relations of the words for which they are substituted in an expanded sentence or period. Therefore also, the period is a true sentence in the sense of being the expression of a complete meaning and so the unit of every language adopting it.

In all speech words are made to indicate the functions they fulfil in a sentence by their position in it, with or without using tones and with or without variation in form, and this habit gives rise of necessity to classes of words according to function. And as any given word can naturally fulfil more than one function, it becomes as naturally transferable from its own class to another, the transfer being indicated by position in the sentence with or without variation in form or tone. The class of a word thus indicates its function, and its position, alone or combined with its form or tone, indicates its class.

So when a word is transferred from its original class, it necessarily fulfils a new function and becomes a new word, connected with the original word in the relation of parent and offshoot, each equally of necessity assuming the form or tone of its own class.

The functions of words in a sentence, and consequently their classes, are therefore in all speech expressed by two methods: position or position combined with variation. Every language adopts one or other or both.

When in any language connected words differ in form, they are made to consist of a principal part or stem and an additional part or functional affix. The stem is used for indicating the meaning of the word and the functional affix for modifying that meaning according to function, by indicating the class to which the word belongs or its relation or correlation to the other words in the sentence.

A simple stem necessarily indicates an original meaning, but a stem can be and habitually is used for indicating a modification of an original meaning. It then naturally becomes a compound stem, *i.e.*, made up, by the same method as that above noted, of a principal part or root and of additional parts or radical affixes, each with its own function, the root to indicate the original meaning and the affix its modification into meaning of the stem.

As all words differing in form or tone of necessity fulfil functions and belong to classes, they must possess a nature, *i.e.*, qualities inherent in themselves, and these, in all languages using such words, are indicated by the addition of qualitative affixes or by the tones in which they are spoken.

Every affix is of necessity fixed into the midst of, or prefixed or suffixed to, a root, stem or word, the affixing being naturally effected in full or in a varied form. Whenever there is variation of form amounting to material change, there is necessarily inflexion, or inseparability of the affixes. Inflexion can therefore be made to fulfil all the functions of affixes, and inflected words to conform to particular kinds of inflexion, in order to indicate function and class: and as tone can be equally made to indicate the functions and classes of words, it takes the place of inflexion.

Words are therefore made to fulfil their functions merely by the tone in which they are spoken, or by an external development effected by affixes, and to express modifications of their original meaning by a similar use of tones or of internal development. In both cases the affixes are prefixes, infixes or suffixes affixed in full or varied form or by inflexion. All languages, using variation of form for causing the components of sentences, *i.e.*, words, to fulfil their functions, adopt one or other or all the above methods of effecting the variation.

Therefore in all speech, communication expressed in a sentence is rendered complete by the combination of the meaning of its components with their position, tones or forms, or with position combined with form or tone.

The methods adopted in developing the sentence, *i. e.*, the unit of speech *itself*, are found to entirely govern those adopted in its further development into a language or variety of speech.

Languages differ naturally in the position of their words in the sentence, or in their forms or tones, or in the combination of position with form or tone. Thus are set up naturally two primary classes of languages:—Syntactical Languages, which express complete communication by the position, and Formative Languages, which express it by the forms of their words.

As position alone or combined with tone can fulfil all the functions of speech, the Syntactical Languages employ one or both of these methods, and thus are created respectively Analytical Languages and Tonic Languages.

Again, as in speech, variety of form is secured by affixes attached to words in an unaltered or an altered form. Formative Languages necessarily divide themselves into Agglutinative Languages, attaching affixes in an unaltered form, and Synthetic Languages, attaching them in an altered form. These two classes are both further naturally divisible into (1) Premutative, (2) Intromutative, (3) Postmutative Languages, according as they attach affixes as prefixes, infixes or suffixes.

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In obedience to a fundamental Law of Nature, no language has ever developed along a single line, and therefore every language belongs of necessity primarily to one of the above classes, and secondarily to others, by partial adoption of their methods. 121 193

Languages, varying the form, tones or position, without varying the meanings of their words, form naturally Connected Languages in the relation of parent and offshoot. Connected Languages, whose stems, *i.e.*, the meanings of whose words, are common to all, form a natural Group of Languages, and those Connected Languages, whose roots, *i. e.*, the original meanings of whose words, are common to all, form a natural Family of Languages. Therefore also of necessity all Connected Languages belonging to a Group belong to the same Family.

As the above method of expounding the Theory involves the use of unfamiliar terms, it is as well to state that the new and the old terms of Grammar roughly, though not exactly, correspond as follow; it being remembered that the old terms are themselves the outcome of another tacit Theory, based upon other observations of natural laws or phenomena.

TABLE OF COMPARATIVE GRAMMATICAL TERMS.

Old.	New.
Noun.	Indicator.
Adjective.	Explicator.
Verb.	Predicator.
Adverbs of different classes.	Illustrator. / Introducer.
Preposition. / Postposition. / Conjunction.	Connector.
Interjection.	Integer.
Pronoun. / Relative Adverb. / Relative Particle.	Referent Substitute.
Gender, Number, Case. / Declension. / Person, Mood, Tense. / Conjugation.	Inflexion of different kinds.
Concord, Agreement. / Government.	Correlated Variation. / Intimate Relation.

The two following diagrams will serve to explain the lines upon which the Theory works itself out:—

DIAGRAM I.

Principle of the Development of the Sentence out of its Components.

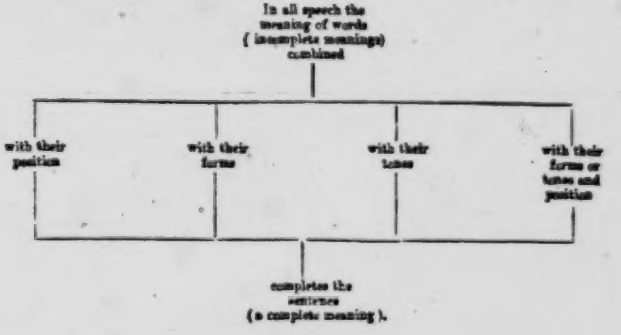
In all speech the meaning of words (incomplete meanings) combined
with their position
with their forms
with their tones
with their forms or tones and position
completes the sentence (a complete meaning).

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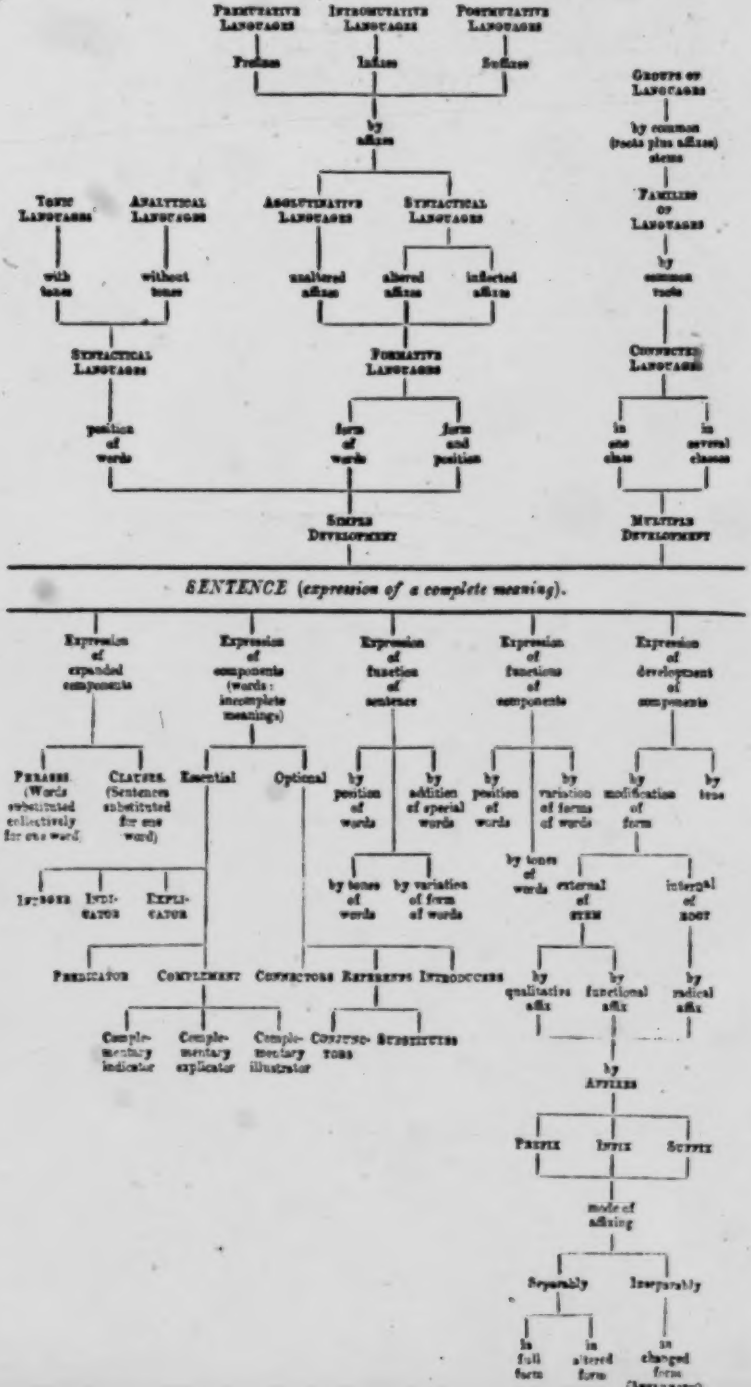
DIAGRAM II.

Development of the sentence or complete meaning, upwards into languages. downwards into its components.



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APPENDIX A.

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EXPLANATION OF THE THEORY OF UNIVERSAL GRAMMAR USED IN EXPOUNDING THE ANDAMAN AND NICOBAR LANGUAGES.

In building up a Theory of Universal Grammar it is necessary in order to work out the argument logically, to commence where the accepted Grammars end, *viz.*, at the sentence, defining the sentence as the expression of a complete meaning, and making *that* the unit of language. Clearly, then, a sentence may consist of one or more expressions of a meaning or "words," defined as single expressions of a meaning. It can also consist of two separate parts—the subject, *i.e.*, the matter to be discussed or communicated, and the predicate, *i.e.*, the discussion or communication. And when the subject or predicate consists of many words it must contain principal and additional words.

This leads to the argument that the components of a sentence are words, placed either in the subjective or predicative part of it, having a relation to each other in that part of principal and subordinate. Therefore, because of such relation, words fulfil functions. The functions then must be of the principal words to indicate the subject or predicate, and of the subordinate words in the predicative part of the sentence to illustrate the predicate, and in the subjective part to explain the subject or to illustrate that explanation. Again, as the predicate is the discussion or communication on the subject, it is capable of extension or completion by complementary words, which form that part of a sentence recognised in the Grammars as 'the object.'

This completes the first stage of the argument leading to a direct and simple definition of grammatical terms; but speech obviously does not stop here, because mankind speaks with a purpose, and the function of his sentences is to indicate that purpose, which must be one of the following in any specified sentence:— (1) affirmation, (2) denial, (3) interrogation, (4) exhortation, (5) information.

Now, purpose can only be indicated in a sentence by the position or tones of its components, by variation of their forms, or by the addition of special introductory words. Also it is obvious that when purposes are connected they can be indicated by connected sentences, and that these sentences must be in the relation to each other of principal and subordinate. This relation can only be expressed by the position of the sentences themselves, by variation of the forms of their components, or by the addition of special words of reference. A word of reference must act in one of two ways, either by merely joining sentences, or by substituting itself in the subordinate sentence for the word in the principal sentence to which it refers. Further, as there is a necessary inter-relation between the words in a sentence, this can only be expressed by the addition of special connecting words, or by variation or correlated variation of form.

These considerations complete what may be called the second stage of the argument leading to clear definitions of grammatical terms. The argument thereafter becomes more complicated, taking us into the explanation of elliptical, *i.e.*, incompletely expressed, forms of speech, and into those expansions of sentences known as phrases, clauses, and periods. But to keep our minds fixed only on that part of it which leads to plain grammatical definitions, it may be stated now that functionally a word must be either,—inventing new terms for the purpose:

(1) An *integer*, or a sentence in itself. [imperatives, interjections, pronouns, numerals.]
(2) An *indicator*, or indicative of the subject or *complement* (object) of a sentence. [nouns.]
(3) An *explicator*, or explanatory of its subject or complement. [adjective.]
(4) A *predicator*, or indicative of its predicate. [verb.]
(5) An *illustrator*, or illustrative of its predicate or complement, or of the explanation of its subject or complement. [adverb, adjective.]
(6) A *connector*, or explanatory of the inter-relation of its components (words). [conjunction, preposition.]
(7) An *introducer*, or explanatory of its purpose. [conjunction, adverb.]
(8) A *referent conjunctor*, or explanatory of the inter-relation of connected sentences by joining them. [pronoun, conjunction.]
(9) A *referent substitute*, or explanatory of the inter-relation of connected sentences by substitution of itself in the subordinate sentence for the word in the principal sentence to which it refers. [relative pronoun, conjunction.]

These, then, were the terms proposed and the arguments out of which they grew. Of course, grammarians will know that all this is syntax, and it must now be explained why the Theory makes it necessary to consider it far more important to study function than form or tone as essential to the correct apprehension of the nature of words, and that accidence arises properly out of syntax and not the other way round, as we have all been taught.

It is obvious that any given word may fulfil one or more or all the functions of words, and that therefore words may be collected into as many classes as there are functions, any individual word being transferable from one class to another and belonging to as many classes as there are functions which it can fulfil. The functions a word fufils in any particular sentence can be indicated by its position therein without or with variation of form, or by its tone; and, because of this, the form or tone which a word can be made to assume is capable of indicating

the class to which it belongs for the nonce. It is further obvious that words transferable from class to class belong primarily to a certain class and secondarily to the others, that a transfer involves the fulfilment of a new function, and that a word in its transferred condition becomes a new word connected with the form fulfilling the primary function, the relation between the forms or tones, *i.e.*, the words, so connected being that of parent and offshoot. Form and tone, therefore, can indicate the class to which a parent word and its offshoots respectively belong. 121

This is the induction that leads to the argument that form grows out of function, or, to put it in the familiar way, accidence grows out of syntax, because when connected words differ in form they must consist of a principal part or stem, and an additional part or functional affix. The function of the stem is to indicate the meaning of the word, and the function of the affix to modify that meaning with reference to the function of the word. This modification can be expressed by indicating the class to which the word belongs, or by indicating its relation or correlation to the other words in the sentence.

But the stem itself may consist of an original meaning and thus be a simple stem, or it may contain a modification of an original meaning and so be a compound stem. A compound stem must consist of a principal part or root and additional parts or radical affixes, the function of the root being to indicate the original meaning of the stem, and of the radical affixes to indicate the modifications by which the meaning of the root has been changed into the meaning of the stem.

Further, since words fulfil functions and belong to classes, they must possess inherent qualities, which can be indicated by qualitative affixes and by tones.

Thus it is that the affixes determine the forms of words, bringing into existence what is usually called etymology or derivation. They are attachable, separably or inseparably, to roots and stems and words by the well-recognized methods of prefixing, infixing, and suffixing either in their full or in a varied form. It is the method of attaching them by variation of form that brings about inflexion in all its variety of kind.

Such is the line inductive argument naturally takes in order to work out the grammar of any given language or group of languages logically, starting from the base argument that speech is a mode of communication between man and man, expressed through the ear by talking, through the eye by signs, or through the skin by touch, and taking a language to be a variety or special mode of speech.

The grammar, *i.e.*, the exposition of the laws, of any single language stops at this point and to carry the argument further, as one of course must, is to enter the region of Comparative Grammar. In doing so one must start at the same point as before, *viz.*, the sentence, but progress on a different line, because hitherto the effort has been to resolve the unit of language into its components, and now it has to be considered as being itself a component of something greater, *i.e.* of a language.

To continue the argument. Since a sentence is composed of words placed in a particular order without or with variation of form, its meaning is clearly rendered complete by the combination of the meaning of its components with their position and tones or forms or both. Also, since sentences are the units of languages, words are the components of sentences and languages are varieties of speech, languages can vary in the forms and tones of their words, or in the position in which their words are placed in the sentence, or in both. And thus are created classes of languages. Again, since the meaning of a sentence may be rendered complete either by the position of its words or by their tones and forms, languages are primarily divisible into syntactical languages or those that express complete meaning by the position of their words; and into formative languages, or those that express complete meaning by the forms of their words. Also, since syntactical languages depend on position or on position combined with tone to express complete meaning, they are divisible into analytical and tonic languages. Further, since words are varied in form by the addition of affixes, and since affixes may be attached to words in an altered or unaltered form, formative languages are divisible into agglutinative languages, or those that add affixes without alteration; and into synthetic languages, or those that add affixes with alteration. And lastly, since affixes may be prefixes, infixes, or suffixes, agglutinative and synthetic languages are each divisible into (1) pre-mutative, or those that prefix their affixes; (2) intro-mutative, or those that infix them; and (3) post-mutative, or those that suffix them.

Thus inductive argument can be carried onwards to a clear and definite apprehension of the birth and growth of the phenomena presented by the varieties of human speech, *i.e.*, by languages. But, as is the case with every other natural growth, no language can have ever been left to develop itself alone, and thus do we get the phenomenon of connected languages, which may be defined as those that differ from each other by varying the respective tones, forms and position, but not the meanings, of their words. And since the variation of form is effected by the addition of altered or unaltered affixes, connected languages can vary the forms of the affixes without materially varying those of the roots and stems of their words. In this way they become divisible into groups, or those whose stems are common, and into families, or those whose roots are common.

It is also against natural conditions for any language to develop only in one direction, or without subjection to outside influences, and so it is that we find languages developing on more than one line and belonging strictly to more than one class, but in every such case the language has what is commonly called its genius or peculiar constitution, *i.e.*, it belongs primarily to one class and secondarily to the others.

I have always thought, and I believe it can be proved, that every language must conform to some part or other of the Theory above indicated in outline, and in that case the

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Theory would be truly what I have ventured to call it—"A Theory of Universal Grammar." That such a Theory exists in nature and only awaits unearthing, I have no doubt whatever. Mankind, when untrammelled by 'teaching,' acts on an instinctive assumption of its existence, for children and adults alike always learn a language in the same way if left to themselves. They copy the enunciation of complete sentences from experts in it to start with, learning to divide up and vary the sentences so acquired afterwards, and this is not only the surest but also the quickest way of mastering a foreign tongue correctly. Its natural laws, *i.e.*, its rules of grammar, as stated in books about it, are mastered later on, and in every case where they only are studied there comes about that book knowledge of the language, which is everywhere by instinct acknowledged to be a matter apart from and in one sense inferior to the practical or true knowledge. I use the term 'true' here, because, unless this is possessed, whatever knowledge may be acquired fails to fulfil its object of finding a new mode of communicating with one's fellow man.

Book knowledge of a language is useful only for scientific and educational purposes, but if the laws laid down in the set Grammars were to follow closely on the laws instinctively obeyed by the untutored man, and to do no violence to what instinct teaches him to be the logical sequence of ideas, the divorce between practical and linguistic knowledge —between knowledge by the ear and knowledge by the eye—would not be so complete as it is nowadays. And not only that, if the laws could be stated in the manner above suggested, they could be more readily grasped and better retained in the memory, and languages would consequently be more quickly, more thoroughly, and more easily learned, both by children and adults, than is now practicable. Looked at thus, the matter becomes one of the greatest practical importance.

This is what the Theory attempts to achieve: but, assuming it to be fundamentally right and correctly worked out, it should explain the workings of the untutored mind of the Andamanese or Nicobarese as exhibited in his speech, although it reverses the accepted order of teaching, alters many accepted definitions, and, while admitting much that is usually taught, it both adds and omits many details, and taken all round is a wide departure from orthodox teaching. How wide the following observations will show. The familiar terminology has been changed in this wise. The old noun, adjective, verb, adverb, preposition, and conjunction become indicator, explicator, predicator, illustrator, connector, and referent conjunctor, while interjections and pronouns become integers and referent substitutes. Certain classes also of the adverbs are converted into introducers. Gender, number, person, tense, conjugation, and declension all disappear in the general description of kinds of inflexion:—the object becomes the complement of the predicate, and concord becomes correlated variation.

The Theory is based on the one phenomenon, which must of necessity be constant in every variety of speech, *viz.*, the expression of a complete meaning, or, technically, the sentence. Words are then considered as components of the sentence, firstly as to the functions performed by them, and next as to the means whereby they can be made to fulfil their functions. Lastly, languages are considered according to their methods of composing sentences and words. Assuming this course of reasoning to be logically correct, it must, when properly worked out, explain every phenomenon of speech; and when its dry bones have been clothed with the necessary flesh for every possible language by the process of direct natural development of detail, a clear and fair explanation of all the phenomena of speech must be logically deducible from the general principles enunciated therein.

The Skeleton of a Theory of Universal Grammar.

SPEECH is a mode of communication between man and man by expression. Speech may be communicated orally through the ear by talking, optically through the eye by signs, tangibly through the skin by the touch. LANGUAGES are varieties of speech.

The *units* of languages are SENTENCES. A sentence is the expression of a complete meaning.

A sentence may consist of a single expression of a meaning. A single expression of a meaning is a WORD. A sentence may also consist of many words. When it consists of more than one word, it has two parts. These parts are the SUBJECT and the PREDICATE. The subject of a sentence is the matter communicated or discussed in the sentence. The predicate of a sentence is the communication or discussion of that matter in the sentence.

The subject may consist of one word. It may also consist of many words. When it consists of more than one word, there is a principal word and additional words. The predicate may consist of one word. It may also consist of many words. When it consists of more than one word, there is a principal word and additional words. Therefore the *components* of a sentence are words placed either in the subjective or predicative part of it, having a *relation* to each other in that part. This relation is that of principal and subordinate.

Since the words composing the parts of a sentence are placed in a position of relation to each other, they fulfil *functions*. The function of the principal word of the subject is to indicate the matter communicated or discussed by expressing it. The function of the subordinate words of the subject may be to explain that indication, or to illustrate the explanation of it. The function of the principal word of the predicate is to indicate the communication or discussion of the subject by expressing it. The function of the subordinate words of the

predicate may be to illustrate that indication, or to complete it. The predicate may be completed by a word explanatory of the subject or indicative of the COMPLEMENT. Therefore, primarily, the words composing a sentence are either— 121 ●

(1) INDICATORS, or indicative of the subject.
(2) EXPLICATORS, or explanatory of the subject.
(3) PREDICATORS, or indicative of the predicate.
(4) ILLUSTRATORS, or illustrative of the predicate, or of the explanation of the subject.
(5) COMPLEMENTS, or complementary of the predicator.

And complements are either indicators or explicators. Therefore also *complementary indicators* may be explained by explicators, and this explanation may be illustrated by illustrators. And *complementary explicators* may be illustrated by illustrators.

But, since speech is a mode of communication between man and man, mankind speaks with a *purpose*. The function of sentences is to indicate the purpose of speech. The purpose of speech is either (1) affirmation, (2) denial, (3) interrogation, (4) exhortation, or (5) information. Purpose may be indicated in a sentence by the POSITION of its components, by the TONES of its components, by VARIATION of the forms of its components, and by the addition of introductory words to express it or INTRODUCERS.

Also, since the function of sentences is to indicate the purpose of speech, *connected purposes* may be indicated by CONNECTED SENTENCES. The relation of connected sentences to each other is that of principal and subordinate. This relation may be expressed by the position of the connected sentences, by variation of the tones or forms of their components, or by the addition of referent words expressing it or REFERENTS. A referent word may express the inter-relation of connected sentences by conjoining them, or by substituting itself in the subordinate sentence for the word in the principal sentence to which it refers. Referents are therefore CONJUNCTORS or SUBSTITUTES

Also, since the words composing the parts of a sentence are placed in a position of relation to each other, this relation may be expressed in the sentence by the addition of connecting words expressing it or CONNECTORS, or by variation of the forms of the words themselves.

Also, since predicators are specially connected with indicators, explicators with indicators, illustrators and complements with predicators, and referent substitutes with their principals, there is an *intimate relation* between predicator and indicator, indicator and explicator, illustrator and predicator, predicator and complement, referent substitute and principal. This intimate relation may be expressed by the addition of connecting words to express it, or by *correlated variation* in the forms of the specially connected words or by their relative position or by their relative tones.

Since speech is a mode of communication between man and man by expression, that communication may be made complete without complete expression. Speech may, therefore, be partly expressed, or be partly left unexpressed. And since speech may be partly left unexpressed, referent words may refer to the unexpressed portions, and words may be related to unexpressed words or correlated to them. Referent substitutes may, therefore, indicate the subject of a sentence.

Again, many words may be used collectively to express the meaning of one word. The collective expression of a single meaning by two or more words is a PHRASE. The relation of a phrase to the word it represents is that of original and substitute. A phrase, therefore, fulfils the function of its original.

Since a phrase is composed of words used collectively to represent a single expression of a meaning, that meaning may be complete in itself. Therefore a phrase may be a sentence. A sentence substituted for a word is a CLAUSE. A clause, therefore, fulfils the function of its original.

Since clauses represent words, a sentence may be composed of clauses, or partly of clauses and partly of words. A sentence composed of clauses, or partly of clauses and partly of words, is a PERIOD.

Therefore a word is functionally either—

(1) A sentence in itself or an INTROER,
(2) An *essential component* of a sentence, or
(3) An *optional component* of a sentence.

The essential components of a sentence are (1) indicators, (2) explicators, (3) predicators, (4) illustrators, (5) complements. And complements are either indicators or explicators.

The optional components of a sentence are (1) introducers, (2) referents, (3) connectors. And referents are either referent conjunctors or referent substitutes.

To recapitulate: Functionally a word is either—

(1) An INTROER, or a sentence in itself.
(2) An INDICATOR, or indicative of the subject or complement of a sentence.
(3) An EXPLICATOR, or explanatory of its subject or complement.
(4) A PREDICATOR, or indicative of its predicate.
(5) An ILLUSTRATOR, or illustrative of its predicate or complement, or of the explanation of its subject or complement.
(6) A CONNECTOR, or explanatory of the inter-relation of its components.

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(7) An INTRODUCER, or explanatory of its purpose.
(8) A REFERENT CONJUNCTOR, or explanatory of the inter-relation of connected sentences by joining them.
(9) A REFERENT SUBSTITUTE, or explanatory of the inter-relation of connected sentences by substitution of itself in the subordinate sentence for the word in the principal sentence to which it refers.

An individual word may fulfil all the functions of words, or it may fulfil only one function, or it may fulfil many functions. When a word can fulfil more than one function, the function it fulfils in a particular sentence is indicated by its *position* in the sentence, either without variation of form or with variation of form or by its TONE. There are, therefore, CLASSES OF WORDS.

Since a word may fulfil only one function, there are as many classes as there are functions. Also since a word may fulfil more than one function, it may belong to as many classes as there are functions which it can fulfil. A word may, therefore, be transferable from one class to another; and this transfer may be effected by its *position* in the sentence without variation of form, or with variation of form or by its TONE. The class to which a word belongs may, therefore, be indicated by its FORM or TONE.

When a word is transferable from one class to another, it belongs primarily to a certain class, and secondarily to other classes. But, since by transfer to another class from the class to which it primarily belongs (with or without variation of form) the word fulfils a *new function*, it becomes a *new word* connected with the original word. The relation between CONNECTED WORDS is that of parent and offshoot. Since the form of a word may indicate its class, both parent and offshoot may assume the forms of the classes to which they respectively belong.

When connected words differ in form, they consist of a principal part or STEM, and an additional part or FUNCTIONAL AFFIX. The function of the stem is to indicate the meaning of the word. The function of the functional affix is to modify that meaning with reference to the function of the word. This *modification* may be effected by indicating the class to which the word belongs, or by indicating its relation or correlation to the other words in the sentence.

A stem may be an original meaning or SIMPLE STEM, or it may be a modification of an original meaning or COMPOUND STEM. A compound stem consists of a principal part or ROOT, and additional parts or RADICAL AFFIXES. The function of the root is to indicate the original meaning of the stem. The function of the radical affixes is to indicate the *modification* by which the meaning of the root has been changed into the meaning of the stem.

Since words fulfil functions and belong to classes, they possess *inherent qualities*. The inherent qualities of words may be indicated by QUALITATIVE AFFIXES or by TONES.

Affixes are, therefore, *functional*, or indicative of the function of the word to which they are affixed, or of its relation or correlation to the other words in the sentence; *radical* or indicative of the modifications of meaning which its root has undergone; *qualitative*, or indicative of its inherent qualities.

Affixes may be—

(1) PREFIXES, or prefixed to the root, stem, or word;
(2) INFIXES, or fixed into the root, stem or word;
(3) SUFFIXES, or suffixed to the root, stem, or word.

Affixes may be attached to roots, stems, or words in their *full form*, or in a *varied form*. When there is variation of form, there is INFLEXION or inseparability of the affix from the root, stem, or word. All the functions of affixes can, therefore, be fulfilled by inflexion; and *inflected words* may conform to particular KINDS OF INFLEXION.

Since a sentence is composed of words placed in a particular order, with or without variation of form, the meaning of a sentence is rendered complete by the combination of the meaning of its components with their position, with their tones, or with their forms, or partly with their position and partly with their forms or tones.

Since sentences are the units of languages, and words are the components of sentences, and since languages are varieties of speech, languages may vary in the forms of their words, in the tones of their words, in the position in which their words are placed in the sentence, or partly in the forms and tones and partly in the position of their words. There are, therefore, CLASSES OF LANGUAGES.

Since the meaning of a sentence may be rendered complete by the position of its words, by their tones or by their form, languages are primarily divisible into SYNTACTICAL LANGUAGES, or those that express complete meaning by the position and tones of their words; and into FORMATIVE LANGUAGES, or those that express complete meaning by the position and forms of their words.

Since syntactical languages use either position or position and tone, they are divisible into ANALYTICAL LANGUAGES and TONIC LANGUAGES.

Since words are varied in form by the addition of affixes, and since affixes may be attached to words in an unaltered or altered form, formative languages are divisible into AGGLUTINATIVE LANGUAGES, or those that add affixes without alteration; and into SYNTHETIC LANGUAGES, or those that add affixes with alteration.

Since affixes may be prefixes, infixes, or suffixes, agglutinative and synthetic languages are each divisible into (1) PER-MUTATIVE LANGUAGES or those that prefix their affixes;

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(2) INTRO-MUTATIVE LANGUAGES, or those that infix their affixes; (3) POST-MUTATIVE LANGUAGES, or those that suffix their affixes. 12/●

Languages are, therefore, by class either syntactical or formative. And syntactical languages are either analytical or tonic and formative languages are either agglutinative or synthetic. And agglutinative and synthetic languages are either pre-mutative, intro-mutative, or post-mutative.

A language may belong entirely to one class, or it may belong to more than one class. When a language belongs to more than one class, it belongs primarily to a particular class, and secondarily to other classes.

Since the meaning of a sentence is rendered complete by the meaning of its words in combination with their forms or position, languages may be CONNECTED LANGUAGES, or those that vary the forms, the tones or the position, without varying the meanings, of their words.

Since variation of form is effected by the addition of affixes in an unaltered or altered form, connected languages may vary the affixes without variation of the roots or stems of their words. Connected languages whose *stems* are common belong to a GROUP. Connected languages whose *roots* are common belong to a FAMILY; and, therefore, all connected languages belonging to a group belong to the same family.

Diagrams to illustrate the Theory of Universal Grammar.

Diagrams are now given illustrating the Theory, in order to make the explanation of the Andaman and Nicobar Languages according to it the easier to understand. These diagrams are as follow: —

I	The Sentence	illustrated		by its components.
II	"	"	"	by the inter-relation of its components.
III	"	"	"	by its function.
IV	"	"	"	by its expanded components.
V	"	"	"	by the inter-relation of its expanded components.
VI	"	"	"	by the functions of its components.
VII	"	"	"	by the classes of its components.
VIII	"	"	"	by the inter-relation of the classes of its components.
IX	"	"	"	by the inter-relation of the functions of its components.
X	"	"	"	by the position, tone and form of its components.
XI	"	"	"	by general development into languages.
XII	"	"	"	by development into classes of languages.
XIII	"	"	"	by development into inter-related classes of languages.

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DIAGRAMS OF DETAILS.

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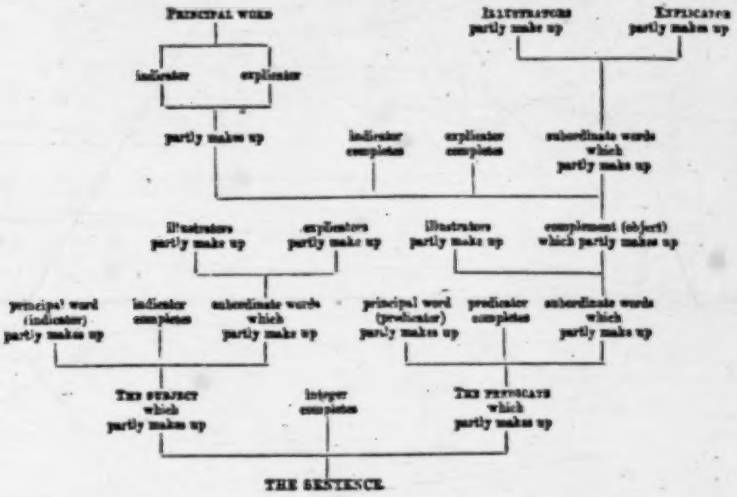
ILLUSTRATING ANALYSIS OF THE SENTENCE BY ITS COMPONENT WORDS.

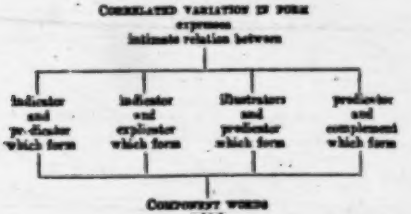
NOTES.—A Sentence is composed of words.
A Word is the expression of a meaning.
A Sentence is the expression of a complete meaning.
Words required to express the meaning of a sentence are (1) integers, (2) indicators, (3) predicators, (4) explicators, (5) illustrators.



II.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE INTER-RELATION AND INTIMATE RELATION OF ITS COMPONENT WORDS.

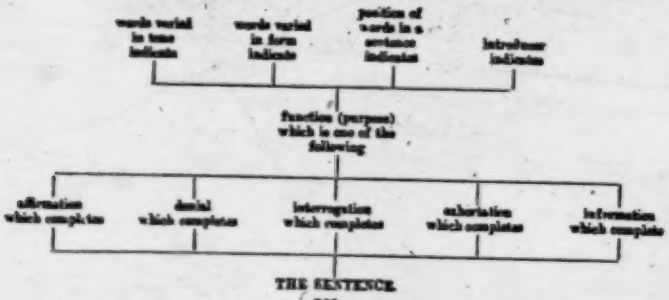
NOTE.—Inter-relation of component words is expressed by variation in form.
Intimate relation of component words is expressed by correlated variation in form (agreement).
Words required to express the inter-relation of component words are (6) connectors.


CORRELATED VARIATION IN FORM expresses intimate relation between
indicator and predicator which form
indicator and explicator which form
illustrators and predicator which form
predicator and complement which form
COMPONENT WORDS which with variation in form partly make up
CONNECTORS partly make up
CONNECTED WORDS which complete
THE SENTENCE.

III.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY ITS FUNCTION.

NOTE.—The function of a sentence is to express its purpose.
Words required to express the function of a sentence are (7) Introducers.

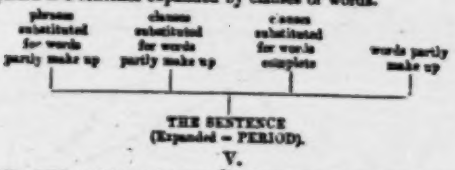

words varied in tone indicate
words varied in form indicate
position of words in a sentence indicates
introducer indicates
function (purpose) which is one of the following
affirmation which completes
denial which completes
interrogation which completes
exhortation which completes
information which completes
THE SENTENCE.

IV.

ILLUSTRATING ANALYSIS OF THE SENTENCE EXPANDED BY THE SUBSTITUTION OF PHRASES, CLAUSES AND SENTENCES FOR WORDS.

(PERIODS)

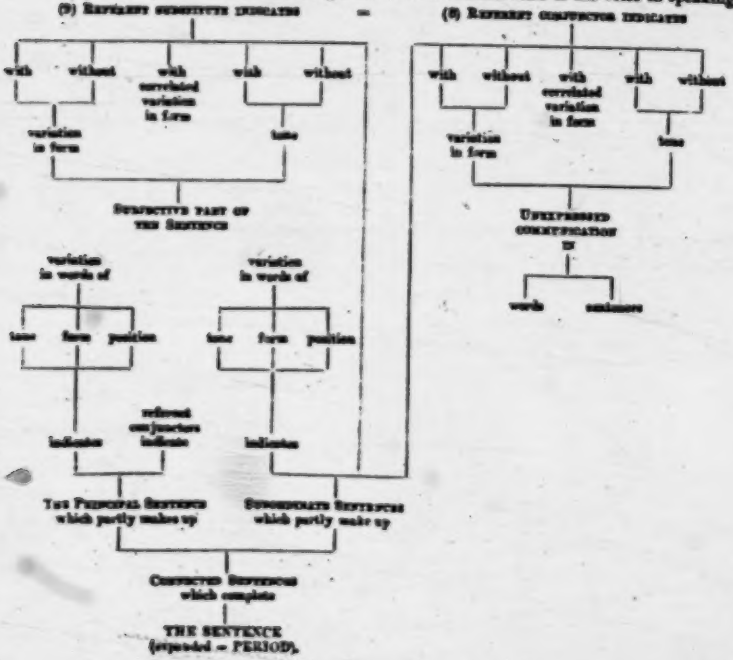
NOTE.—A phrase is the substitute for a word by the collective expression of a meaning by two or more words.
A clause is the substitute for a word by the collective expression of a complete meaning by two or more words.
A period is a sentence expanded by clauses or words.


phrases substituted for words partly make up
clauses substituted for words partly make up
sentences substituted for words complete
words partly make up
THE SENTENCE (Expanded = PERIOD).

V.

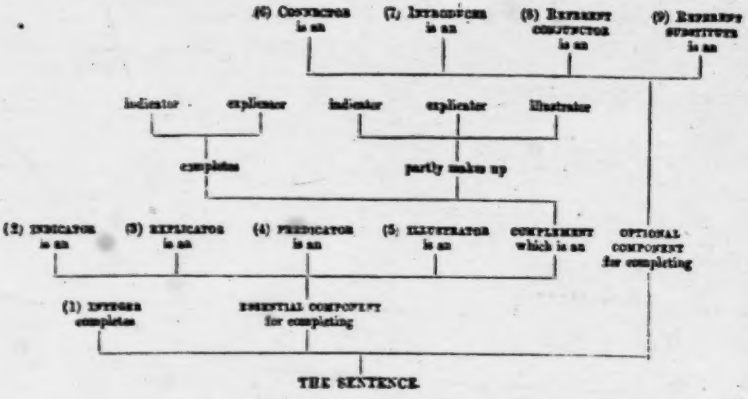
ILLUSTRATING ANALYSIS OF THE SENTENCE WHEN EXPANDED BY THE INTER-RELATION OF ITS COMPONENTS.

NOTE.—Connected sentences express connected purposes. Words required to express the inter-relation of connected sentences are (8) referent conjunctors. (9) referent substitutes. A tone is a point on a conventional scale of the voice in speaking.



VI.

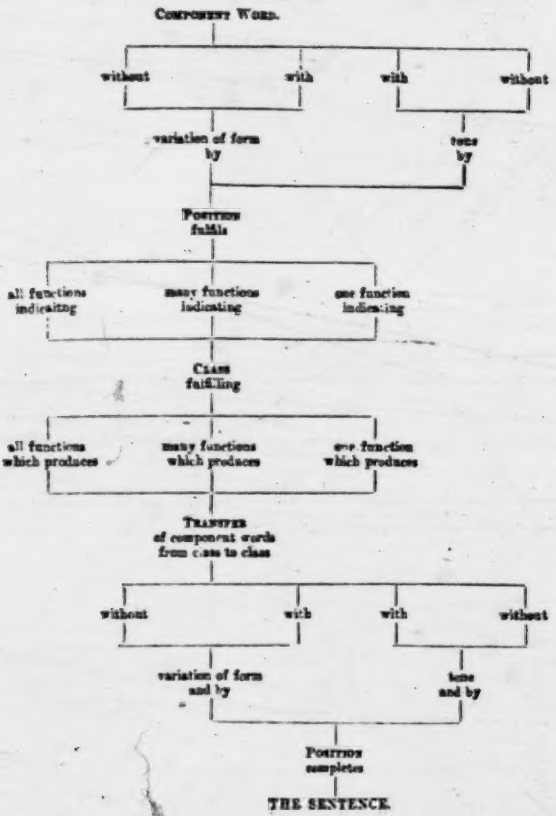
ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE FUNCTIONS OF ITS COMPONENTS.



VII.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY CLASSES OF ITS COMPONENTS.

NOTE.—Class indicates the nature of a word.
Form indicates the class of a word.

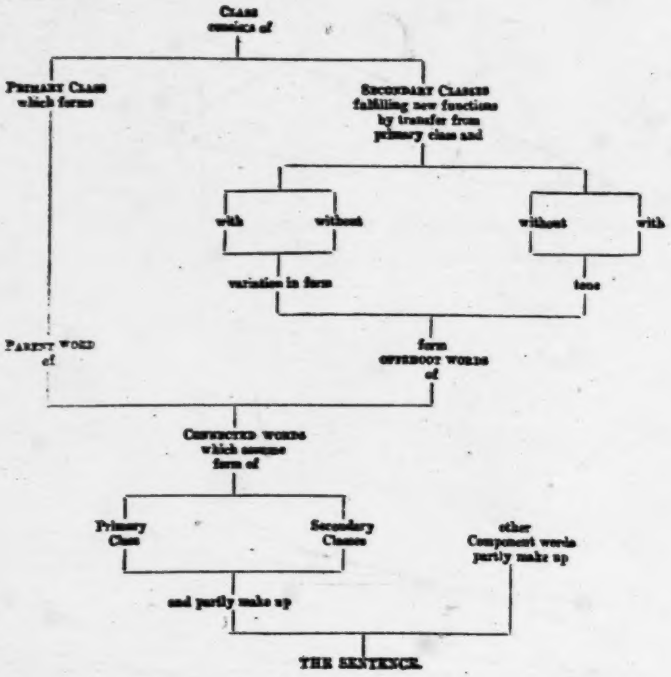


VIII.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE INTER-RELATION OF THE CLASSES OF ITS COMPONENTS.

121

NOTE.—Connected words indicate their transfer from one class to another.



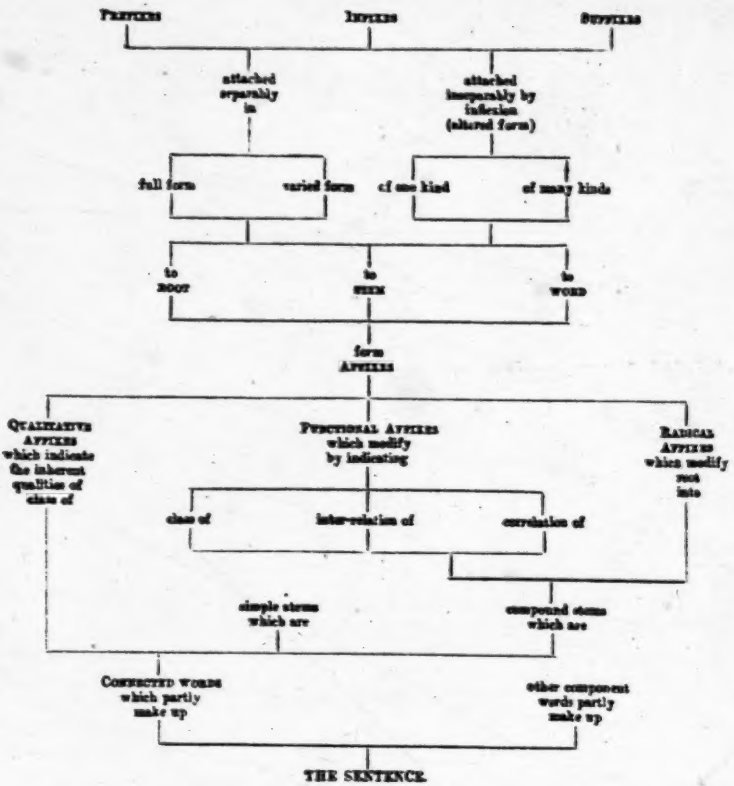
IX.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE INTER-RELATION OF THE FUNCTIONS OF ITS COMPONENTS.

NOTES.—The root indicates the original meaning of a word.
Affixes comprise prefixes, infixes, suffixes.
Affixes modify the meaning of a word.
A radical affix modifies the meaning of a root.
A simple stem is the principal part of a word indicating its meaning.
A functional affix modifies the meaning of a stem in relation to its function.
A compound stem comprises a root and its radical affix.
A qualitative affix modifies a word by indicating its nature (inherent qualities) in relation to function or class.
Connected words comprise stems and their functional affixes.
Inflexion is caused by an alteration in the form of inseparable affixes.
Inflected words conform to particular kinds of inflexion.
Tone is a substitute for inflexion.

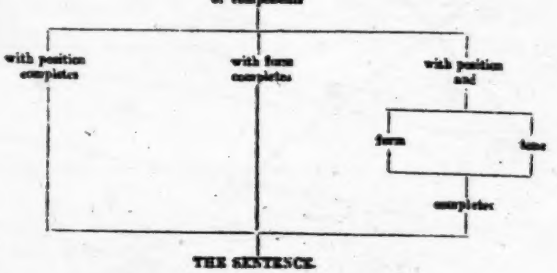
3: Temple G-5 (15 , 1903 AZ2 Andamans AZ

• (2)



X.

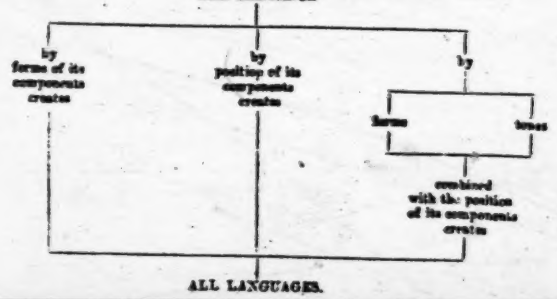
Illustrating analysis of the Sentence by the position, tone and form of its components.



XI.

Illustrating analysis of all Languages by General Development from the Sentence.

Note.—No language has ever developed along one line of development only.

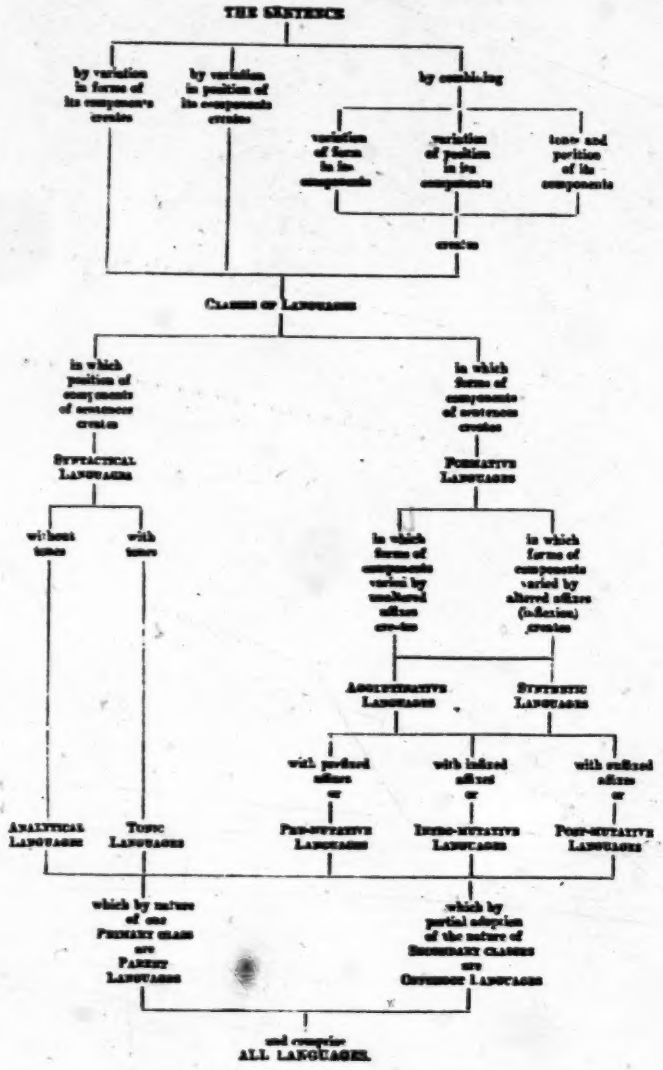


3: Temple G-5 (1901) 1903 AZ2 Andamans AZ2

XII.

ILLUSTRATING ANALYSIS OF ALL LANGUAGES BY DEVELOPMENT IN CLASSES FROM THE SENTENCE.

121

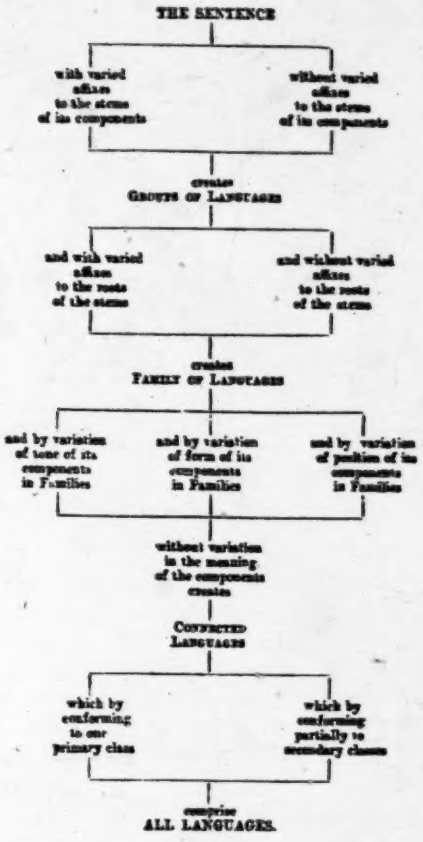

THE SENTENCE
by variation in forms of its components evolve
by variation in position of its components evolve
by combining
variation of form in its components
variation of position in its components
tone and position of its components
evolve
CLASSES OF LANGUAGES
in which position of components of sentences evolve
in which forms of components of sentences evolve
SYNTACTICAL LANGUAGES
FORMATIVE LANGUAGES
without tones
with tones
in which forms of components varied by combined affixes evolve
in which forms of components varied by altered affixes (inflexion) evolve
AGGLUTINATIVE LANGUAGES
SYNTHETIC LANGUAGES
with prefixed affixes
with infixed affixes
with suffixed affixes
ANALYTICAL LANGUAGES
TOPIC LANGUAGES
PRE-MUTATIVE LANGUAGES
INFIXO-MUTATIVE LANGUAGES
POST-MUTATIVE LANGUAGES
which by nature of one PRIMARY CLASS are PARENT LANGUAGES
which by partial adoption of the nature of SECONDARY CLASSES are OFFSHOOT LANGUAGES
and comprise ALL LANGUAGES.

3: Temple G-5 (1901) 1905 AZ2 Andamans AZ2

• 121

XIII.

ILLUSTRATING ANALYSIS OF ALL LANGUAGES BY DEVELOPMENT IN THE INTER-RELATION OF CLASSES FROM THE SENTENCE.


THE SENTENCE
with varied affixes to the stems of its components
without varied affixes to the stems of its components
creates
GROUPS OF LANGUAGES
and with varied affixes to the roots of the stems
and without varied affixes to the roots of the stems
creates
FAMILY OF LANGUAGES
and by variation of tone of its components in Families
and by variation of form of its components in Families
and by variation of position of its components in Families
without variation in the meaning of the components creates
CONNECTED LANGUAGES
which by conforming to one primary class
which by conforming partially to secondary classes
comprise
ALL LANGUAGES.

4: Guha E-5 (1948-1949)1953 AZ2 Andamans AZ2

Report of a Survey of the Inhabitants of the Andaman and Nicobar Islands during 1948-49

[PI]

By

B. S. Guha

Director, Department of Anthropology

About the end of the year 1946, Mr H. J. Stooks, Deputy Secretary to the Ministry of Home Affairs, consulted me with regard to proposals made by Sri A. V. Thakkar of the Bharatiya Adim Jati Sevak Sangh for undertaking work for the amelioration of the conditions of the inhabitants of the Andaman and Nicobar Islands on the same lines as the Sangh has been doing among the Bhils and other tribes of Central India. The problem of the Aborigines of the Andaman Islands, however, is not the same as that of the other primitive tribes of India. These people are some of the most ancient remnants of the human race still surviving in any part of the world, who had been very little affected from contact with other people and subsist principally on fishing and hunting. The need among them is not so much the spread of education and social uplift as the arrest of the decline in population which has been most alarming. Since the establishment of the Penal Settlement at Port Blair in 1858, the condition of the "Friendly Tribes" among these inhabitants have been most distressing. Due in the beginning to armed encounters with the forces of the Government, and also as a result of ravages from diseases like tuberculosis and syphilis contracted from Indian convicts, there has been a continuous decline in the Andamanese population. From an estimated figure of about 10,000 people in 1779 the tribe has been reduced to only 70 in 1931, and at the time of our visit there were probably not more than 37 individuals still living. Whether it will be possible to save the Andamanese from the fate of the Tasmanians whose last surviving representative passed away about 1770 is extremely doubtful.

The hostile branch of the Andamanese tribes known as the Jarawa-Onge-Sentinelese group, fortunately has been spared the fate of their more "friendly" kinsmen, and as a result of implacable hostility and comparative isolation have survived to a much larger extent. In the western forest belts of Middle and South Andamans, the Little Andaman, and the North Sentinel Islands they have resisted all intrusions from outsiders and were known to have lived in these places comparatively unmolested. No accurate census of these tribes however, was ever taken, but from estimates made by people who had some knowledge of the tribes, it does not seem possible that the total strength of these people could be more than a few hundred souls altogether before the last war. What has happened since and how far these people, specially the Jarawas, have suffered from Japanese occupation cannot accurately be determined. It is known that there had been some bombing by the Japanese in the Jarawa tract, but whether any Jarawa was killed is not known. I, therefore, suggested to Mr Stooks that an anthropological survey of the Islands was essential and a probable estimate of the surviving settlements of the population made before the question of any social welfare work can be considered.

122 considered. I promised the full collaboration of this Department for undertaking such a survey. It was at first planned to take a fully equipped scientific party for a period of at least six months with headquarters at Port Blair, members of which could pay short visits to the different Islands where the Andamanese tribes were known to have lived. The Ministry of Home Affairs agreed to the proposal and expressed their willingness to place a trawler at our disposal for visiting the outlying islands as no other means of transport existed. Negotiations were taken up for securing the services of Mr Crawley of the B. N. Railway to accompany the party as guide and adviser for he was one of the few who had a direct knowledge of the Jarawa area. With Mr. Duncan of the same Railway, both of whom were landed in the Jarawa territory by British submarines during the last War he spent nearly 6 months in that tract. Although Mr Crawley was very willing to accompany our party it was not found possible in the end to secure his services as the B. N. Railway could not spare him. What is still more unfortunate was that the R. I. N. could not spare any trawler. The prevalence of polio or infantile paralysis in an [164] epidemic form in the Nicobar Islands at the time made it impossible to include them in our itinerary. Lastly, the Chief Commissioner of the Andaman and Nicobar Islands informed us that owing to great demands on residential accommodation at Port Blair it would be difficult for him to find enough living quarters for our party. He suggested that a smaller party might be sent instead, for making exploratory surveys only.

Accordingly, the original plan had to be modified and a party consisting of myself, Mr S. S. Sarkar, who had then just joined the Department, 3 scientific assistants and 3 attendants left for the Islands on board the 'S. S. Maharaja' on February 17, 1948, reaching Port Blair on the 20th. The Chief Commissioner, Mr S. Majid, I.C.S., met us at the quay and arranged for our stay at the Guest House facing the harbour. He was an exceedingly well-informed and kind gentleman and promised to give us all facilities in our work. We 121 discussed the various questions concerning the Andamanese population and he agreed with me that the most pressing need was to collect correct statistics regarding the strength and distribution of the so-called hostile tribes. For very little can be done now to save the Andamanese proper who have paid for their friendliness by being driven to the verge of extinction and it is now a question of time before they would completely disappear. At the present [161] moment the surviving remnants of this group numbering about 37 have been collected and settled in the Neil and Havelock Islands. In consultation with 122 Mr Majid the plan of making the preliminary reconnaissance was fixed. It was agreed that I, and as many of my party as could be accommodated in the Port Blair harbour launch 'Molly', which Mr Majid by arrangements with the harbour authorities found it possible to place at our disposal for about a week, would leave for Little Andaman to survey the eastern coast of the Island in search of the Onge settlements, as far as this was practicable within this short time. Accordingly we left Port Blair on the 23rd February at 7-30 in the morning on board the motor launch 'Molly'; myself, Messrs S. S. Sarkar, S. Banerjee, R. De and Ramkaasis forming the members of our party.

for such a fairly long period, it was decided to give up the idea of continuing our survey of the Little Andaman that year. A 122

At the suggestion of Mr Majid it was finally decided instead to pay a visit to the surviving members of the Friendly Andamanese tribes at Neil and Havelock Islands where they had now been transferred and settled. Unfortunately, as it was March and the closing month of the financial year, I had to return to my headquarters at Banaras and leave Mr Sarkar in charge of the party to carry on further surveys in the North and Middle Andamans as far as this was found possible. A 121 [131]

Accordingly Mr Sarkar with his party left Port Blair on 6-3-48 on the Forest Motor Launch "Lindsay" and arrived at Long Island at about 8 A.M. on the following day. Mr Sarkar was met by Mr Joseph, T. S. D. O. who brought "Loka" and his party of four Andamanese. They were studied by him. The party left Long Island on the Forest Launch "Kokhari" at about 7-30 A.M. on the following day. Mr Joseph accompanied the party, who halted at the Guitar Island where some of Loka's associates were hunting turtles with harpoons. After leaving Guitar Island, the launch passed through Homfray Strait. Mr Joseph showed the spot where the Jarawas in 1925 attacked his camp. This is near the place from where the Jarawas usually crossed from the Baratang Island to the Middle Andamans. Proceeding further westwards, Mr Sarkar and his party reached the north-east end of the Spike Island. This is another route of migration of the Jarawas from the South to North Andamans. Usually they come from the South Andaman and cross over to Bluff Island and then reach the Spike Island opposite to it. Loka gave the information that it was about this place that several Jarawas were shot sometime back and their bodies were buried in the Bluff Island. The party went along the coast of Neil Island and anchored off Foul Bay. Human footprints identified by Mr Joseph and Loka as belonging to the Jarawas were found in the sand. Following the footprints the party found the remnants of burnt ashes and cinder in a spot in the jungle. There were also vessels made of leaves for carrying water which were still wet. These were collected as specimens of Jarawa objects for the Department's collections. No traces of Jarawas themselves could however be found who must have moved into the jungles just prior to our party's visit. Our men then crossed over to Bluff Island and searched for the Jarawa skeletons, but none were found. On the 9th of March the "Kokhari" returned to Long Island, where it anchored. Loka brought his party of 21 individuals who were now settled in Neil Island. These people were carefully studied by Mr Sarkar and notes taken regarding their geneology, family structure and physical state, etc. On the 9th the Deputy Chief Commissioner, Mr S. C. Gupta with his wife arrived at Long Island. Mr Sarkar and his party accompanied him to Stewart Sound in his boat "Elsa". Unfortunately the few Andamanese who were living there happened to have gone out in their canoes for fishing and could not be contacted (*see* Plate I, Fig. 5). A 115 A 114 [225] [411] A 215 [106] A [115]

They then went with Mr Gupta to the Karen village called *Webi* situated at a short distance from Stewart Sound. There were no Andamanese there, K 361

5: Sarkar D-5 (1948)1953 AZ2 Andamans AZ2

Blood Groups from the Andaman and Nicobar Islands

By

S. S. Sarkar

The following blood group data were collected during the months of February-April, 1948 in the course of a visit to Little Andaman, Long Island and Car Nicobar by a party under Dr B. S. Guha from the Department of Anthropology, of which the present writer was a member. The data grouped according to the different tribes are as follows :—

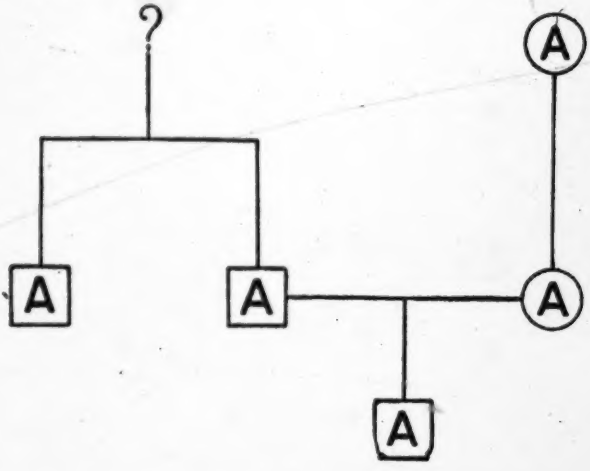
Onges

34 Onges, 19 males and 15 females, were grouped from the island of Little Andaman. They were collected from the settlements round about Bumila Creek, Dugong Creek and the village Tambebui on the N. E. part of the island. The blood group distribution is as follows :—

O	5	14·71%
A	23	67·65%
B	2	5·88%
AB	4	11·76%
	34	

The predominance of group A was already noticeable from Chaudhuri's (Gates, 1940) earlier study of 5 Onges, 3 of whom belonged to A and 1 each to Group O and B.

This will be also apparent from the following pedigree, where three generations show only A.



6: Cipriani E-5 (1951-1953)1961 AZ2 Andamans AZ2
Onge

torches for hunting by night. There were pigs everywhere. In half an hour we often got six or more of them. At Chemalê, far from the coast, we had eleven in a few minutes for distribution to everybody, including roaming Onge. Pigeons and ducks also were often plentiful. The simple pleasures of hunting incited everyone to a spontaneous daily struggle through the dense forest; and so, every month, I managed to carry out many times the work I could have done had I not kept all the men glad to follow me. On seven different occasions I spent 162 days in Little Andaman, out of a total of 634 days altogether in the Andamanese Archipelago – all of them given up to Onge research. These trips are recorded in Port Blair Government offices. A few details on the subject are published in the "Bulletin of the Department of Anthropology", Government of India, starting in Vol. II, No. 1, 1953 (issued in 1956) and extended to other issues. Such papers were hurriedly prepared by me while I was halting in Calcutta on my way from the Andamans to Europe. Press proofs could never be submitted to me; there are, consequently, many misprints, particularly in the figures relating to my Onge Census. The misprints are so obvious that they could only influence a most biased critic: to be discussed in future papers and while my Onge book is in preparation. In Port Blair (South Andaman) I started an Onge Museum with material collected by me. I had the honour of inaugurating it on 6 July, 1953 in the presence of the Chief Commissioner for Andamans and Nicobars, Mr. A. K. Ghosh, one of the kindest and most intelligent Indian gentlemen that it was my pleasure to meet in Asia. On 9 March, 1954 Dr. RAJENDRA PRASAD, President of the Republic of India, also visited the Museum. On that occasion I introduced to him 30 of my Onge friends (wives, husbands and children) in their most natural attire. The President questioned me at length on Onge anthropology and ethnology with the pertinence of a specialist.

While in Little Andaman I tried to study all possible aspects of Onge life. I also tried to count the natives: a very difficult task for they are a nomadic people, ready to vánish into the jungle at any moment. Often I was surrounded by them without seeing a single one. In the darkness of their jungle, the small, black, naked Onge easily disappear. They see us but we do not see them. They can only be counted in their sleeping quarters in communal huts; even so, results are misleading. I found a number of communal huts in the interior regions of Little Andaman, whereas previously they were said to exist only on the coast. The larger, more solidly built huts are in the forest. With the help of my Indian assistants I obtained plans and photographs of all the huts that I saw. Unfortunately the number of Onge communal huts is rapidly diminishing – a very significant fact. Many are in ruins, many more completely destroyed. Only kitchen-middens and occasional clusters of planted bamboo indicate their former location. Through an interpreter, and with two Onge speaking a little Hindi, I was able to gather information on these and other matters. Direct observation, however, proved the best way of gaining knowledge. In some places there was nothing to help me, and I was compelled to guess about communal huts whose inmates chose to hide in the jungle. Of the many personal names that I collected I must say that they are reliable only for a short period: the Onge like to change their names from time to time. All this, in addition to the Onge's nomadic way of life, causes great confusion and makes a proper Census almost impossible. Frequent changing of names also hinders the establishment of genealogies. Furthermore, the Onge custom of adopting children shifts many of them from one family to another, and adoptive parents invariably claim them as their own offspring. The parents themselves, who are ignorant of numbers, not infrequently forget how many children they have, who these children are and where they are located. It was almost useless to follow previous information concerning communal huts; and so I decided to consider mainly the situation existing at the time of my visits. The result of my Census may be imperfect, but before criticizing it it would be advisable to know the conditions that prevail in anthropological work among the Onge. Something more than merely counting people, anyhow, was achieved by me in Little Andaman.

In this short paper I am pleased to present a peculiar aspect of Onge life, an aspect that these innocent and once hostile people did not attempt to hide from me, though they also told me nothing about it. Only direct observation could help, and it involved pro-

10: Sen K-3, 4 (ca. 1955) 1962 AZ2 Andamans AZ2

[Introductory, P. iV]
[Introductory, P. iii, is blank]

PREFACE

The dearth of literature but considerable curiosity about the islands because of the presence of the aborigines, the development of the penal colony and in recent years the colonisation of the refugees, have inspired the author to write a geographical treatise of these islands covering almost all their physical and socio-economic aspects. The interest of the author about these islands of course dates back to some 8 or 9 years for preparing a thesis about these islands as a part fulfilment of his M. Sc. course and the author with the limited time and money made some personal enquiries for the collection of data and the assessment of the situation. The access to the data and the other research materials and the visits to the different parts of the islands were possible through the kind permission and help of the-then Chief Commissioner Sri S. N. Maitra, the Forest Officers, the Head Master of Port Blair High School. Dr. L. Cipriani besides a host of other officers and friends in the islands and also at Calcutta. However the ultimate preparation of the thesis became possible for the kind guidance of Dr. S. P. Chatterjee, Head of the Dept of Geography, Calcutta University.

Anybody faces a tremendous problem in conducting a thorough survey of the islands arising out of the poor communication facilities both on land and water, and more so on account of the very few literatures on the islands. The author cannot demand a thorough enquiry in all parts of the islands and his analysis of the different aspects has been derived more from the conclusions of sample survey.

Though a long time has elapsed since the preparation of the thesis in the year 1955, the author has been, on the whole, eager to incorporate all the latest informations of the islands. The present book is partially a reproduction of his previous thesis with some additional facts and informations and the objective of such changes has been to prepare a comprehensive geographical treatise rather than focussing one particular aspect as was done in the thesis i.e. the colonisation problems of the islands. Besides this, additional chapters on the aboriginal population, the overall assessment and also a geographical account on the Nicobar Islands have been added. The Nicobar Islands, though form only a sidelight of the book, also command a separate geographical treat-

11: Cipriani E-3 (1951-1955) 1966 AZ2 Andamans AZ2

Foreword

The following pages represent a brief account of my observations during a period of nearly two years which I spent in the Andaman Islands, living for part of the time with the Onges, who provide the major part of my material.

I had for a long time been interested in the vexed question of the origins of the pygmies, and after spending some years studying them in Africa and in Asia I came to the conclusion that the peoples of the Andaman archipelago might well represent the 'purest' living example of Negrito stock and culture, remaining as they have in complete isolation until very recently. After a brief visit to the Islands in 1951, therefore, and with the warm co-operation of all the officials and government departments concerned, I was able, beginning in 1952, to spend a total of 634 days in the Islands, 162 of them living in the forests of Little Andaman with the Onges.

It would be impossible to list individually the Indian government officials who aided me in every way, but I wish to record here my deepest appreciation of the courtesy and help extended to me by all the departments and individuals with whom I had dealings, both in the Andamans and in India itself. To all of them, whatever their rank or station, are due my warmest thanks – without their help these notes, incomplete as they are, could never have been written.

Armed with gifts of mirrors, glass beads, cloth and, above all, tobacco, I was able to make friends with the reputedly ferocious people of the Andamans and to make observations which, though but a beginning, will I hope lead others to carry further the work which I was able to begin. During my visits to the Islands I was able to set up a museum at Port Blair, where I hope ultimately to

11: Cipriani E-3 (1951-1955) 1966 AZ2 Andamans AZ2

● 121 build up a complete picture of the life and culture of the islanders; it will fall to others to continue where I have had to stop, and I can only hope, in these pages, to awaken in others the interest and sympathy which I came to feel for these strange, child-like, but lovable people – the Onges of Little Andaman.

LIDIO CIPRIANI

11: Cipriani E-3 (1951-1955) 1966 AZ2 Andamans AZ2
Onges

colonel who had accompanied him. After a series of similar incidents involving other people Portman went to Bumila Creek on 10 November 1891, for revenge. A number of Onges, including the one responsible for wounding the colonel, were captured and taken to Port Blair.

Other visits by various people followed, always very brief and always limited to the coast, but there were no landings of note. Various expeditions visited the coast of the island for a few days and even made contact with some of the Onges, but the interior of the island remained as unknown as before. In February 1951 I accompanied one of these expeditions, which again did not go beyond the coast. Those five days on Little Andaman were most revealing, and enabled me to plan the landing I subsequently made in 1952. I saw that the island was teeming with game, that wild fruit and edible roots were plentiful, and that the sea round the island was full of fish, lobsters, huge crabs and turtles. Moreover, the turtles laid eggs in the sand where it was very easy to find them by following the beasts' tracks. I realized that it would be unnecessary to bring in provisions, and that it would be possible to enter the forest unencumbered with anything more than guns, cartridges and a few cooking utensils. Every day during this short stay I went with a police escort as far as possible into the forest in order to reconnoitre. In some places I noticed recent traces of small bare feet, but no Onges appeared.

Realizing that mobility was essential for any expedition into the interior of the island, I prepared at Port Blair a number of small watertight metal boxes to hang from the shoulder, to take a minimum of necessities. The largest items in my own personal baggage were a mosquito-net, a very light hammock and note-books. Cartridges were to be divided among the boxes. Tents, camp-beds and other large equipment would have to be left in a base camp, which would be established on the coast and left under police guard with radio transmission apparatus for communication with Port Blair. If necessary, a portable radio could follow us.

Several factors made me want to return. There was the mystery of the unknown interior of the island. There was the prevailing lack of information of any kind about the Onges, even of their numbers. I wanted too to carry out an investigation of their somatic characteristics, using the greatest possible number of individuals.

11: Cipriani E-3 (1951-1955) 1966 AZ2 Andamans AZ2
Onges

Pesekem), although they are distinguished from them by profound cultural differences. These differences exist even between the three groups of Negritos. Whereas in Malacca and the Philippines they reflect the influx of superior cultures, these have had very little influence in the Andamans. For this reason the Andamanese have perforce remained more faithful to very ancient customs, and are also somatically the least altered.

The study of the last remaining groups, the Onges and Jarawas, now on the point of extinction if they are not protected, is thus a matter of singular urgency and significance.

We know nothing of how the Negritos arrived in their present homes with somatic and cultural characteristics quite distinct from those of any other human type. Apart from some dubious remains excavated in Indochina we do not even have any fossil remains to show their probable original distribution. There is, however, reason to believe that they were once very widely dispersed, judging from the evidence of their presence today as isolates widely separated from each other.

No traces of them remain in the continental areas adjacent to the Andamans, apart from the Malaccan peninsula. At one time it was thought that traces of a Negrito element were to be found in the Kadir of Hindustan, revealed by the occasional presence of curly hair, I have myself visited the area, and must refute this suggestion; the people have nothing of the Negrito in their body structure, their hair is markedly longer than the Negrito and they have body hair. The kinky hair (never woolly) occasionally seen may derive from distant Negro crosses, or may be an accidental similarity. I have seen this type of curliness even in Europeans who certainly had no Negro or pygmy ancestry.

It has also been asserted, possibly with some foundation, although there are few data available, that there are traces of the Negrito among the people of New Guinea, such as the Tapiro. Although of small stature, their general characteristics would seem to relate the Tapiro more closely to the Papuans; they have yellowish skin, probably the lightest in that area, they are, again, hirsute and there is a marked absence of Negrito characteristics in the proportions of the body.

The first thing that strikes one on meeting the Onges – and indeed the Andamanese in general – is the exceptional blackness and